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ORIGINAL RESEARCH ARTICLE

Lower Risk of Heart Failure and Death in Patients Initiated on Sodium-Glucose Cotransporter-2 Inhibitors Versus Other Glucose-Lowering Drugs

The CVD-REAL Study (Comparative Effectiveness of Cardiovascular Outcomes in New Users of Sodium-Glucose Cotransporter-2 Inhibitors)

Editorial, see p 260

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- This is the first large real-world study of >300 000 patients with type 2 diabetes mellitus, both with and without established cardiovascular disease, from routine clinical practice across 6 countries, evaluating the outcomes of hospitalization for heart failure (HHF) and all-cause death in patients with type 2 diabetes mellitus treated with sodium-glucose cotransporter-2 inhibitors (SGLT-2i) versus other glucose-lowering drugs.
- The distribution of exposure time for the various SGLT-2i compounds (for HHF outcome) was 53% for canagliflozin, 42% for dapagliflozin, and ≈5% for empagliflozin, with substantial intercountry variability.

What Are the Clinical Implications?

- Treatment with SGLT-2i versus other glucose-lowering drugs was associated with a 39% relative risk reduction in HHF, a 51% reduction in all-cause death, and a 46% reduction in the HHF or death composite, consistent with the effects previously reported in a randomized clinical trial of empagliflozin.
- Approximately 87% of patients did not have known cardiovascular disease, suggesting possible cardiovascular benefits for a broad population of patients with type 2 diabetes mellitus.